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10/582,102

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EXAMINER

ADDISU, SARA

ART UNIT

PAPER NUMBER

3724

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/582,102 | Applicant(s) PANTZAR, GORAN | |
| | Examiner SARA ADDISU | Art Unit 3724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/13/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1 and 6 are objected to because of the following informalities:

- Claim 1 (lines 5 and 8) and claim 6 (lines 6 and 9) recite "inset(s)", instead of "insert(s)".
- Claim 1 (lines 11), has a full stop after the word "respectively" instead of a comma.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafe (DE 3314049 A1), in view of Dotany (USP 5,083,887).

Regarding claims 1, 2, 4-6, GRAFE teaches a milling tool rotating about an axis (16), having an envelope surface , plurality of axially spaced inserts arranged in spiral rows wherein a first insert (6O) (thus also insert pocket) located closest to the front end has another length (longer) than the other inserts/insert pockets within the same flute (6) ('049, figure 2 and abstract). GRAFE also teaches the inserts of adjacent rows being

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staggered relative to one another ('049, abstract). Furthermore, regarding claim 3, GRAFE discloses the claimed invention (i.e. the end insert (6O) being longer than the other insert (6)), except for the length difference being approximately 50%. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the size of the insert depending on the machining operation and workpiece material..ect, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

However, GRAFE teaches the active edges of the cutting insets of the same flute partially overlapping each other.

DOTANY teaches a milling tool having cutting inserts disposed in a helical array in which the cutting edge of each insert, with respect to the cutting tool, is spaced in the circumferential direction from the seat of the next adjacent insert and is in overlapping relationship in the axial direction with the cutting edge of the next adjacent insert, and the radially-extending edges of each insert are in overlapping relation with the radially-extending edges of the adjacent inserts, such that the cutting edges of all the inserts define a continuous, non-interrupted, cutting line of stepped configuration (and the overlapping arrangement of DOTANY's inserts would subject the inserts to a uniform load) ('887, figure 5 and col. 1, lines 53-63). DOTANY also teaches a projection of cutting inserts in a conventional helical cutting tool whereby active edges of the cutting insets of the same flute do not overlapping each other ('887, figure 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify GRAFE such that its active edges of the

cutting insets of the same flute partially overlapping each other, as taught by DOTANY for the purpose of such defining a continuous, non-interrupted, cutting line of stepped configuration ('887, col. 1, lines 53-63).

Response to Arguments

Applicant's arguments filed 2/13/09 have been fully considered but they are not persuasive.

In response to Applicant's argument (page 8) that "From the above disclosures in Grafe and Dotany, one can see that what is missing from this combination is a Disclosure of an even number of flutes and insert rows, respectively, amounting to at least four, wherein the front cutting insert in every second flute has another length than the other cutting inserts in the same flute and a disclosure of the cutting inserts arranged to subject each to a uniform load. Also, there is no reasoned statement explaining the basis for any modification of the cited references in support of an obviousness rejection of the claims as presently presented", Examiner respectfully disagrees. Grafe teaches an even number of flutes amounting to at least four (i.e. dozen spirals, see translation, page 1, paragraph 1, line2). Furthermore, it should be noted that it is old and well known to have different number of flutes depending on the size of the tool and application.

In response to Applicant's argument (page 8) that "This is improper as an obviousness rejection (see, KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, (2007); In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot

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be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). Thus, it is respectfully asserted that a prima facie case of obviousness has not been established because at least some of the claimed features are lacking from the rejection.", Examiner respectfully disagrees. Examiner has stated in the previous Office Action (11/13/08, page 4) that 63). DOTANY also teaches a projection of cutting inserts in a conventional helical cutting tool whereby active edges of the cutting insets of the same flute do not overlapping each other (and this concept is also seen on Grafe) and so DOTANY teaches the advantage of modifying this structure such that the active edges of the cutting insets of the same flute partially overlapping each other, as taught by DOTANY for the purpose of such defining a continuous, non-interrupted, cutting line of stepped configuration ('887, col. 1, lines 53-63).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sara Addisu/

Examiner, Art Unit 3724

5/2/09

/Boyer D. Ashley/

Supervisory Patent Examiner, Art Unit 3724